

REMARKS

This is responsive to the Office Action dated September 26, 2003. Claims 1-18 were rejected under 35 U.S.C. §103 as being unpatentable over Odell (U.S. Patent No. 5,487,965) or Dada et al. (U.S. Patent No. 5,328,927). The statement of the rejection is as follows:

“The Odell patent teaches processes for preparing polymeric compositions in a supercritical fluid medium, see column 1. The step of homogeneously blending and dispersing additives is rendered obvious from the disclosure at columns 8-10. Releasing the pressure as required by the claim is rendered prima facie obvious by the recognition by one of ordinary skill in the art that the composition would achieve atmospheric pressure at the conclusion of the preparation of the composition. As such, it would seem that the pressure is at that point released.

“The Dada et al. patent shows processes for blending of polymer products and additives within the polymeric products in supercritical fluids. See columns 3 and 4. The same rationale applies here with respect to the releasing of the pressure of the fluid once the blending step is completed. As such, applicants’ claim limitations are seen to be rendered prima facie obvious.”

Claims 1-18 are presently pending in this application. The present invention is directed to a process for the compatibilized blending of at least one polymer for a powder coating in a supercritical fluid. Claims 1, 7 and 14 are independent claims. Claim 1 is directed to compatibilized blending, while claim 7 is directed to a process for particle-size classifying a powder coating without a grinding stage and claim 14 is directed to a powder coating by a supercritical fluid process. Each of these claims is directed to powder coatings or processes of making the powder coatings in which the powder coating is blended with additives which result in an encapsulating blending of at least one polymer with additives or producing a powder coating without a grinding stage. Each of these independent claims involve producing a powder coating in a supercritical fluid and releasing the pressure of the fluid to form the blended powder coating. The Examiner has focused on releasing the pressure and argues that the teaching of this step in Odell and Dada is sufficient to create a prima facie case of obviousness. But, the Examiner has overlooked key elements of the claims which are neither anticipated by, nor disclosed by, either Odell or Dada or any combination of them. These features include the fact that, when forming the

blended powder coating, it is done without fusion or curing of the polymer (claim 1 and claim 14). Further, in claim 7, the process requires either a stepwise change in temperature and pressure, the use of a striker chamber, or cycling the fluid from supercritical to subcritical and back to control particle size of the powder coating.

Odell does not disclose or suggest the process for compatibilized blending to form a powder coating or for particle size classification of a powder coating. Odell discloses a process for the formation of developer composition. The process of Odell is limited to forming a melt mixture comprised of a polymer resin or resins, a colorant, a charge director additive, and a hydrocarbon liquid carrier, to obtain a first suspension of colored polymer particles with an area average diameter of from about 2 to about 100 microns, and then dispersing the first suspension in a supercritical fluid medium and, thereafter, continuously feeding the resulting dispersion to a liquid fluidizing means under pressure to obtain a second suspension. The process is described in column 6, line 58 to column 8, line 38. Thus, Odell teaches a process in which the polymer particles would fuse because it forms a melt mixture. This is different than the applicants' process in which the blending is done without the fusion or curing of the polymer.

Dada discloses the polymerization of monomers in a supercritical fluid to produce polymers having a low polydispersity index, which is not a particle size classification step as is required by applicants' claims. Further, as a polymerization process, it does not suggest blending powders without fusion or curing of the polymers. Dada never teaches the production of a powder coating that is formed by compatibilized blending a polymer with additives, and therefore, Dada cannot possibly teach particle size classification classifying the powder coating. Applicants' claims 1-18 define a powder coating and processes for producing powder coatings which are neither anticipated by nor obvious from either Odell or Dada or any combination of them.

For the foregoing reasons, reconsideration of the rejections and allowance of claims 1-18 is respectfully requested.

Should the Examiner have any questions or wish to discuss any of the foregoing in more detail, the undersigned attorney would welcome a telephone call to finalize allowance of this application and its issuance as a patent.



Application No.: 10/042,488
Amendment dated: February 19, 2004
Reply to Office Action of September 26, 2003

Respectfully submitted,

George W. Moxon II, Reg. No. 26,615
Roetzel & Andress
222 South Main Street
Akron, OH 44308
Telephone: (330) 849-6689
Facsimile: (330) 376-4577

February 19, 2004
1137852_1/089498-0283-DIV

Attorney for Applicant